

# Investment Performance Report

Alabama 529

Alabama ABLE Savings Plan

December 31, 2022

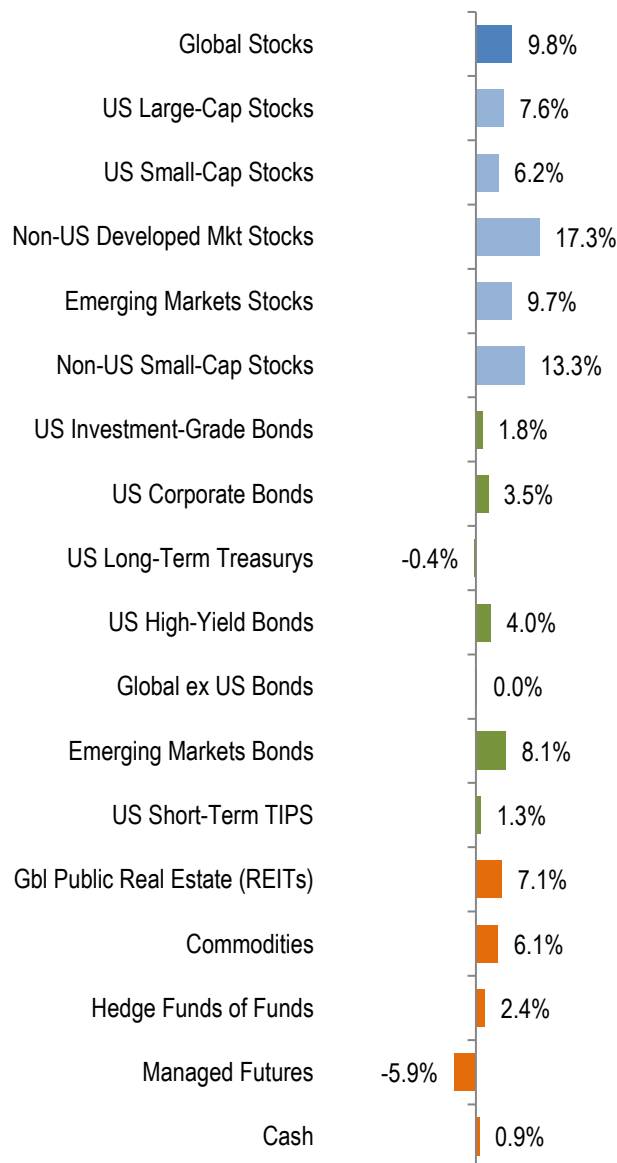
Performance is presented net of underlying management fees

**Sellwood**  
CONSULTING LLC

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As of December 31, 2022

Fourth Quarter 2022



Fourth Quarter 2022: What's Next?

A tepid fourth-quarter rally in both stocks and bonds helped cut losses to close out a frustrating year for investors. For the full year, both global stock and investment-grade bond market indices suffered double-digit losses, as stock/bond diversification failed to meaningfully protect portfolios. A traditionally diversified portfolio of 60% stocks and 40% bonds suffered the fourth worst drawdown in the last century, measured in both real and nominal terms.

After battering markets during much of the calendar year, inflation showed signs that it may in fact have peaked in the fourth quarter. Cooler inflation readings, consumer spending resilience, as well as better-than-expected corporate earnings helped rally shares in the first two months of the quarter before a more worrisome narrative took hold in December to depress the market. Investors, who have now seen the post-COVID enthusiasm fully fade from the markets, have returned their focus to the Federal Reserve, the expected path of future interest rates, and the economic and market implications thereof. The uncertainty surrounding these complex questions has kept markets depressed.

The higher expected returns created by this uncertainty offer opportunity. Just one year ago, with interest rates near their all-time lows and valuation ratios near their highs, investors were left with a menu of unattractive opportunities. Investment options now are much more normalized. Interest rates sit near their 25-year averages, and stocks are priced by various metrics near their 25-year medians. With both stocks and bonds again offering reasonable future returns, we believe that the "T.I.N.A." (there is no alternative) market that helped create SPAC, meme stock, and cryptocurrency mania has ended. While nobody knows what comes next, we are comforted that valuations offer more compensation for the uncertainty today.

	QTD	YTD	1 Year	3 Years	5 Years	15 Years
Global Stocks	9.8%	(18.4%)	(18.4%)	3.9%	5.0%	5.0%
US Large-Cap Stocks	7.6%	(18.1%)	(18.1%)	7.7%	9.4%	8.8%
US Large-Cap Value	13.6%	(5.2%)	(5.2%)	6.3%	7.6%	7.1%
US Large-Cap Growth	1.5%	(29.4%)	(29.4%)	7.5%	10.3%	10.1%
US Small-Cap Stocks	6.2%	(20.4%)	(20.4%)	3.1%	4.1%	7.2%
US Small-Cap Value	8.4%	(14.5%)	(14.5%)	4.7%	4.1%	6.8%
US Small-Cap Growth	4.1%	(26.4%)	(26.4%)	0.7%	3.5%	7.3%
Non-US Developed Markets (USD)	17.3%	(14.5%)	(14.5%)	0.9%	1.5%	1.8%
Non-US Developed Markets (Local)	8.7%	(7.0%)	(7.0%)	3.6%	3.8%	3.5%
Emerging Markets (USD)	9.7%	(20.1%)	(20.1%)	(2.7%)	(1.4%)	0.7%
Emerging Markets (Local)	6.6%	(15.5%)	(15.5%)	0.1%	1.3%	3.2%
US Investment-Grade Bonds	1.8%	(13.2%)	(13.2%)	(2.8%)	0.0%	2.7%
US Long-Term Treasuries	(0.4%)	(28.2%)	(28.2%)	(7.0%)	(2.0%)	3.6%
Gbl Public Real Estate (REITs)	7.1%	(24.4%)	(24.4%)	(4.1%)	0.7%	2.9%
Hedge Funds of Funds	2.4%	(4.7%)	(4.7%)	3.9%	3.2%	1.8%
Cash	0.9%	1.5%	1.5%	0.8%	1.3%	0.7%

Returns for periods longer than 1 year are annualized.

Sources: Sellwood Consulting LLC, Morningstar, Federal Reserve Economic Data, S&P Dow Jones Indices, MSCI, FTSE Russell, ICE BofA, Credit Suisse, JP Morgan, HFR

As of December 31, 2022

The U.S. Senate passed a roughly \$2 trillion coronavirus response bill intended to provide relief across the American economy.

Labor Department data showed that US job openings reached a record 9.3 million.

The May 2022 inflation report, released by the US Bureau of Labor Statistics showed the Consumer Price Index at +8.6% year over year, the largest 12-month increase since 1981.

Federal Reserve Chair Jerome Powell reaffirmed the central bank's plan to begin reversing its easy-money policies sometime in 2022.

US oil futures reached \$130 a barrel as Russia invaded Ukraine.

Q3 2022 GDP readings were adjusted upwards highlighting strong growth in exports and consumer spending.

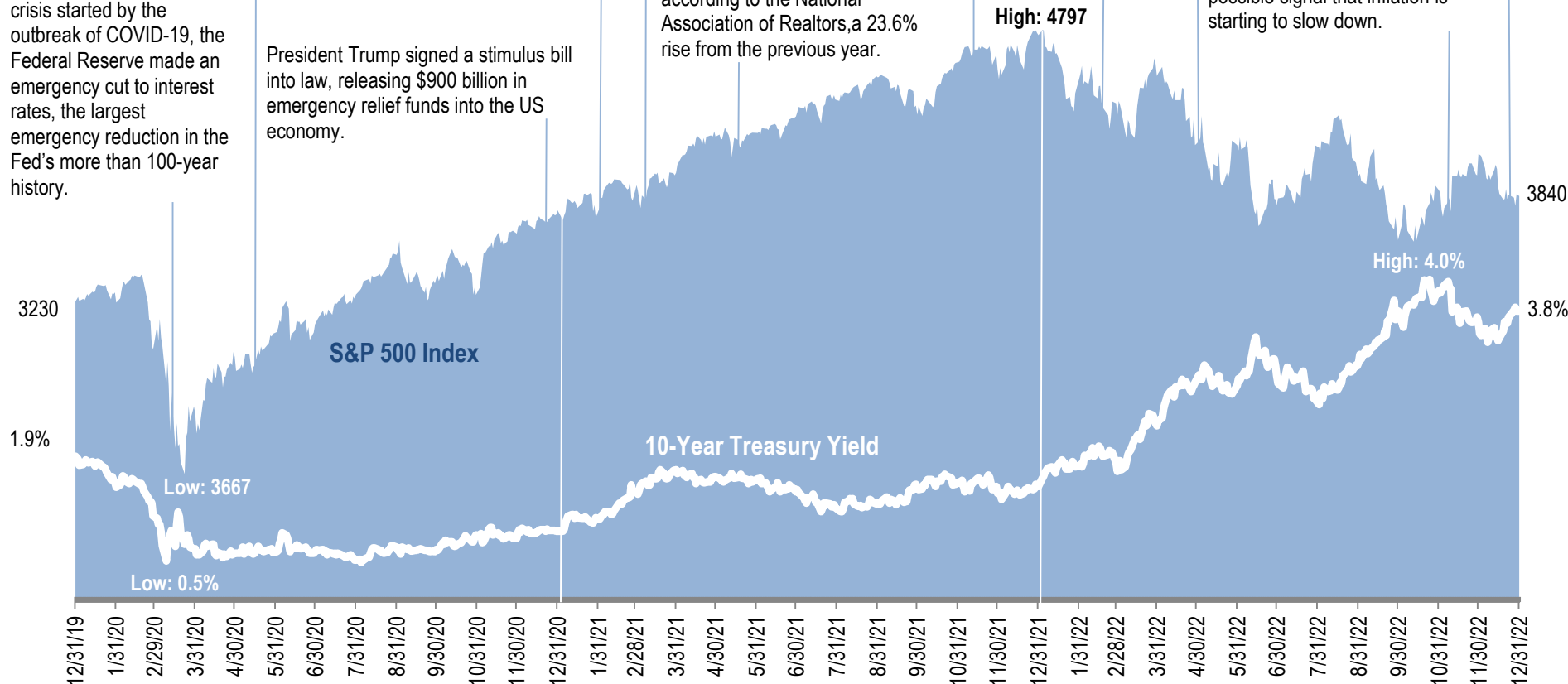
October 2022 inflation came in below expectations at a 7.7% annual increase versus a 8.0% rate that was expected - a possible signal that inflation is starting to slow down.

In response to the market crisis started by the outbreak of COVID-19, the Federal Reserve made an emergency cut to interest rates, the largest emergency reduction in the Fed's more than 100-year history.

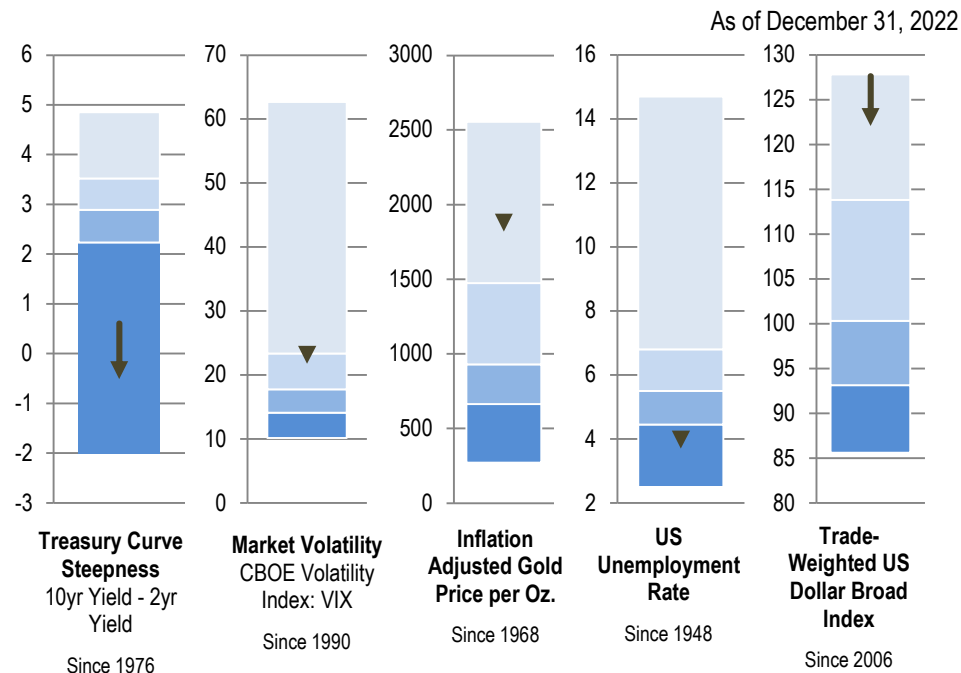
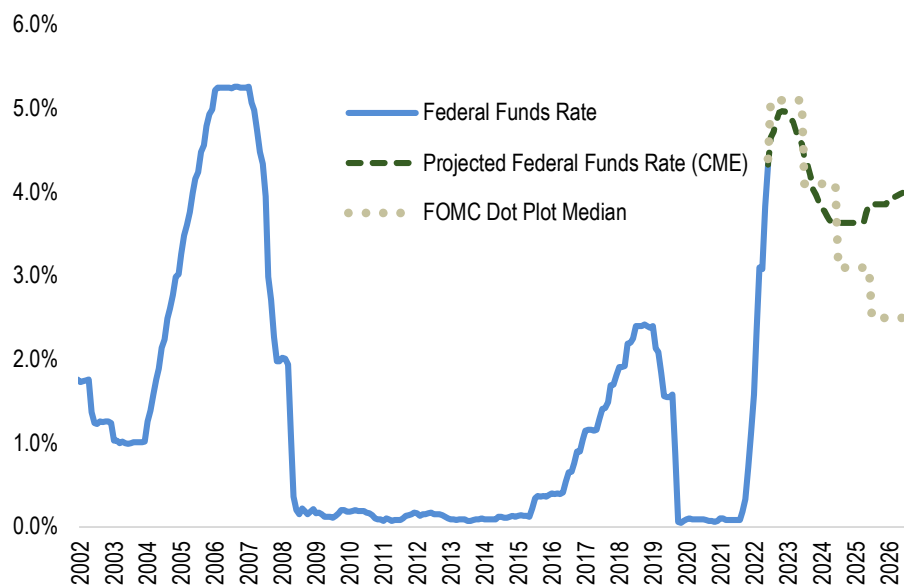
President Biden signed a third stimulus bill into law, releasing \$1.9 trillion in emergency relief funds into the US economy.

President Trump signed a stimulus bill into law, releasing \$900 billion in emergency relief funds into the US economy.

In May 2021, home prices topped \$350,000 for the first time according to the National Association of Realtors, a 23.6% rise from the previous year.

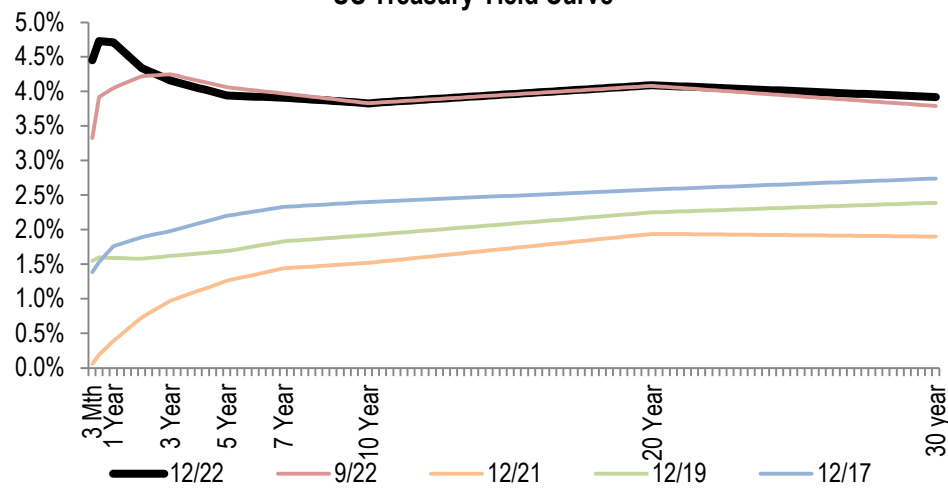


### Federal Funds Rate



	12/2022	9/2022	12/2021	12/2019	12/2017
<b>Market Inflation Expectations</b>					
5 Year	2.3	2.1	2.9	1.7	1.9
10 Year	2.3	2.2	2.6	1.8	2.0
20 Year	2.5	2.4	2.6	1.9	2.0
CPI Year-over-Year	---	8.2	7.1	2.3	2.1
West Texas Crude Oil	79.5	79.9	75.3	61.1	60.5
Consumer Sentiment Index	59.7	58.6	70.6	99.3	95.9
S&P 500 Operating EPS	53.5*	50.4	56.7	39.2	33.9
Real GDP Growth YoY	---	3.2	7.0	1.8	4.1
Federal Funds Rate	4.33	2.56	0.08	1.55	1.30

### US Treasury Yield Curve



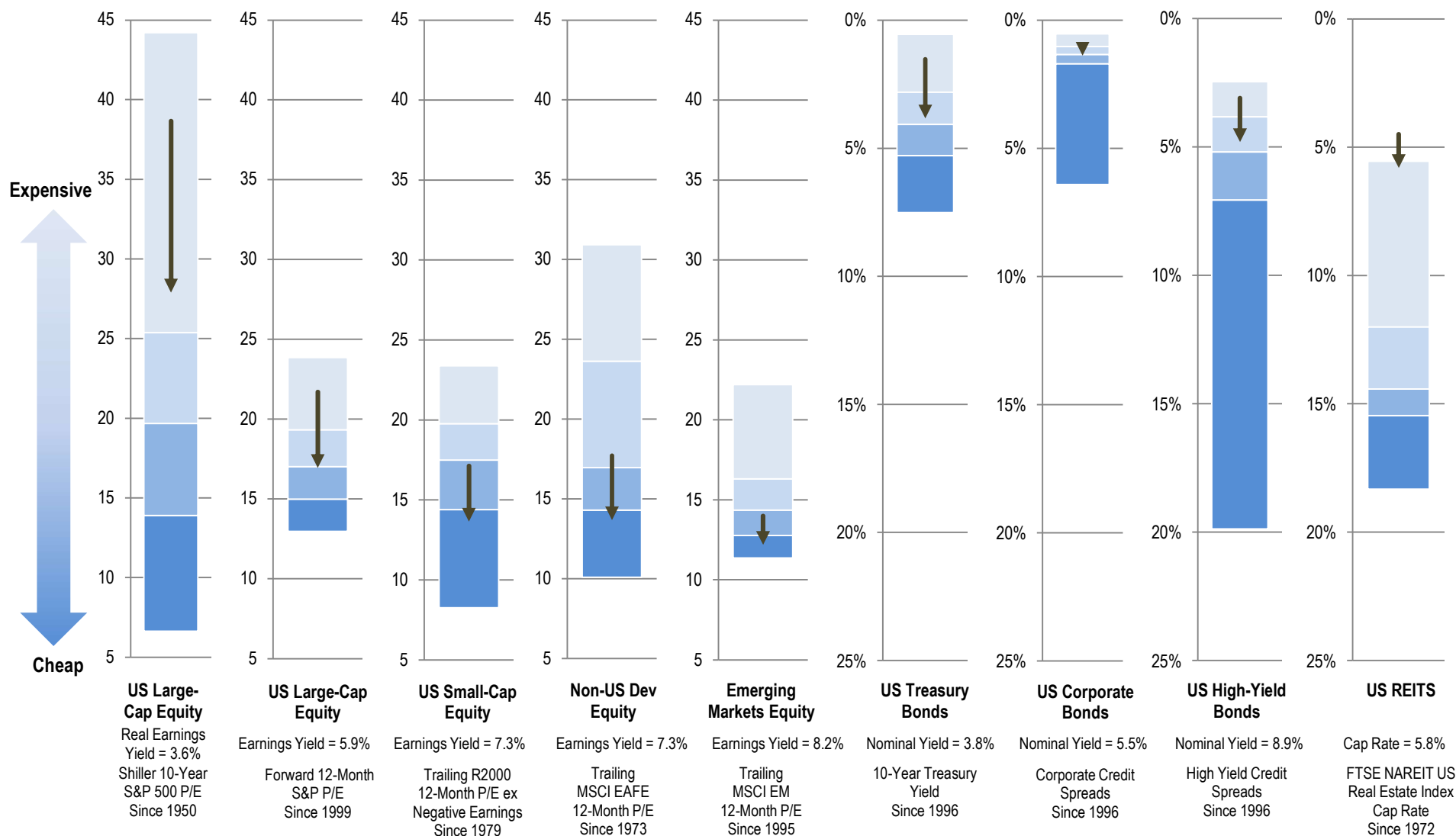
Sources: Sellwood Consulting LLC, Morningstar, Federal Reserve Economic Data, CME Group, S&P Dow Jones Indices

Arrows in the top-right charts represent year on year change.

\*Estimate provided by S&P Dow Jones Indices.

## Global Market Valuations - One Year Change

As of December 31, 2022

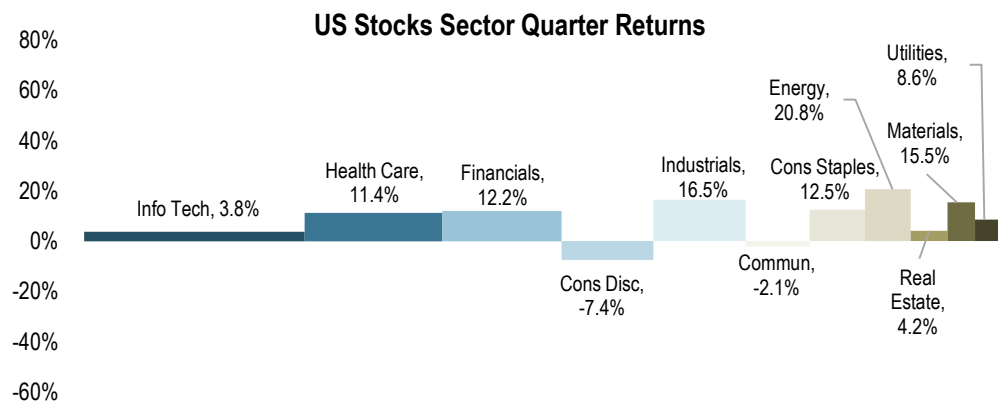


Arrows represent year on year change. Trailing 12 month P/E and cap rate metrics exclude the top and bottom 5%. P/E metrics calculated by Investment Metrics and Morningstar may use different methodology.

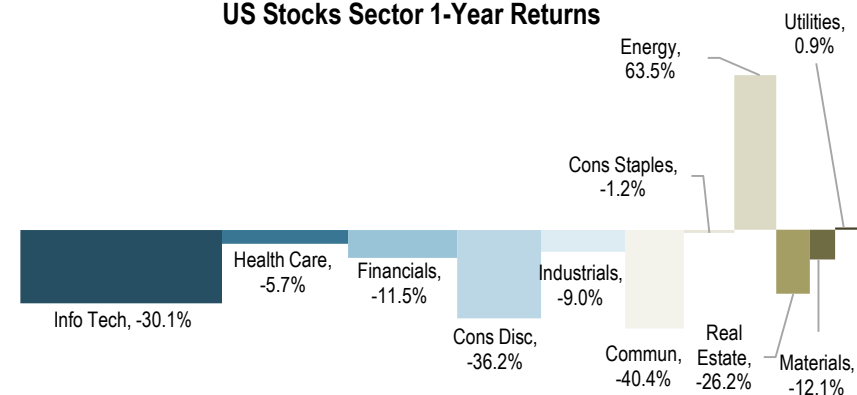
Sources: Sellwood Consulting LLC, Robert Shiller Data, S&P Dow Jones Indices, FTSE Russell, MSCI, Federal Reserve Economic Data, NAREIT

## Sector and Region Returns

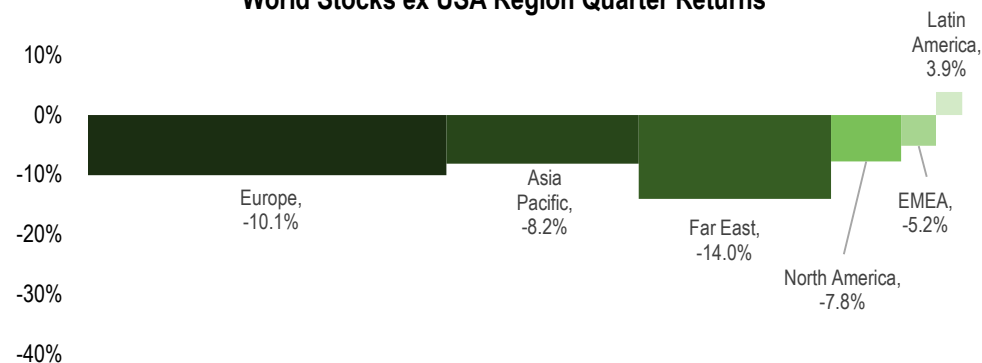
As of December 31, 2022



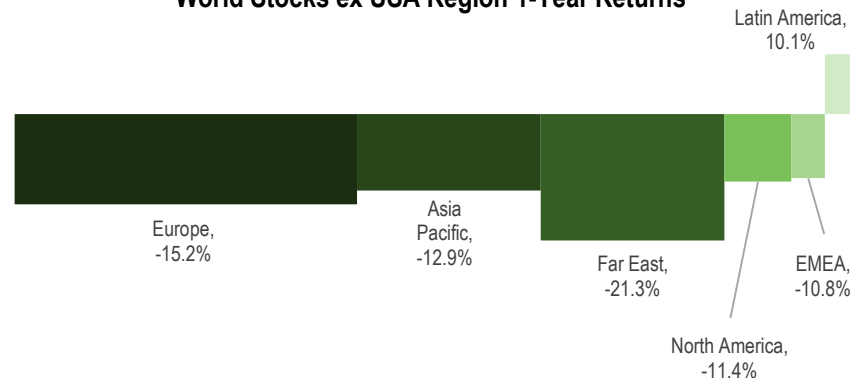
### US Stocks Sector 1-Year Returns



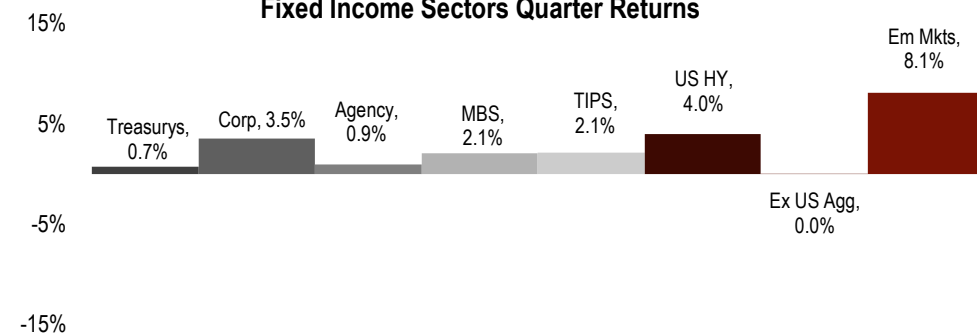
### World Stocks ex USA Region Quarter Returns



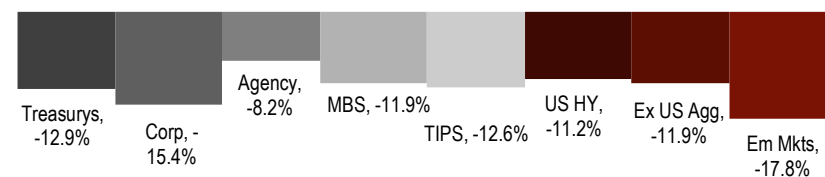
### World Stocks ex USA Region 1-Year Returns



### Fixed Income Sectors Quarter Returns



### Fixed Income Sectors 1-Year Returns



The equity bar widths depict end of the quarter region and sector weights. Fixed income bar widths do not depict specific sector weights. The Far East includes Hong Kong, Japan and Singapore.

Sources: Sellwood Consulting LLC, Morningstar, S&P Dow Jones Indices, MSCI, ICE BofA

## Asset Class Returns

As of December 31, 2022

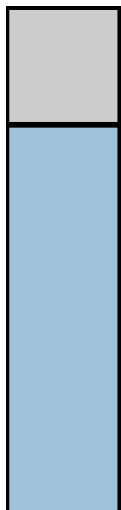
2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1/1/2013 - 12/31/2022	Legend
39%	24%	4%	21%	37%	2%	31%	20%	43%	25%	8%	Global Stocks
32%	16%	1%	17%	25%	0%	26%	18%	29%	22%	13%	US Large-Cap Stocks
24%	16%	1%	16%	24%	0%	26%	18%	27%	1%	9%	US Small-Cap Stocks
23%	14%	0%	12%	22%	-2%	23%	17%	18%	-4%	5%	Non-US Developed Market Stocks
9%	6%	0%	11%	15%	-2%	22%	16%	15%	-5%	1%	Emerging Market Stocks
7%	5%	0%	8%	11%	-4%	19%	11%	11%	-11%	1%	US Investment-Grade Bonds
7%	4%	0%	5%	8%	-4%	18%	8%	8%	-13%	1%	US Long-Term Treasuries
4%	3%	-1%	4%	8%	-4%	14%	8%	6%	-14%	4%	US High-Yield Bonds
0%	3%	-1%	3%	8%	-5%	14%	6%	6%	-18%	1%	US Short-Term TIPS
-2%	0%	-2%	3%	7%	-10%	9%	6%	5%	-18%	4%	Public Real Estate (REITs)
-2%	-1%	-4%	1%	4%	-11%	8%	2%	0%	-20%	5%	Managed Futures
-2%	-2%	-5%	1%	1%	-11%	5%	1%	-2%	-20%	4%	Hedge Funds of Funds
-3%	-5%	-15%	1%	1%	-14%	2%	-8%	-3%	-24%	1%	Commodities
-12%	-26%	-29%	0%	-2%	-15%	-5%	-8%	-5%	-28%	1%	Cash

Returns for the period from 1/1/2013 - 12/31/2022 are annualized.

Sources: Sellwood Consulting LLC, Morningstar, S&P Dow Jones Indices, MSCI, FTSE Russell, ICE BofA, Credit Suisse, JP Morgan, HFRI

As of December 31, 2022

Mkt Val % by  
Option Type

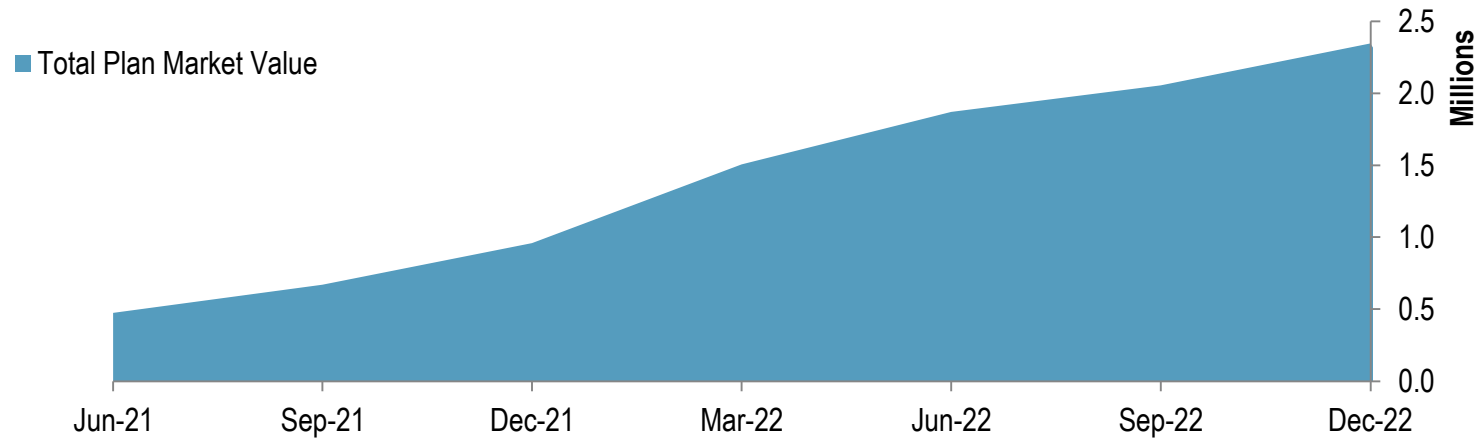


Fund Options	Current Market	% of
	Value (\$)	Total
Target-Risk Portfolios	545,113	23.2%
AL ABLE Aggressive	144,020	6.1%
AL ABLE Moderate	243,595	10.4%
AL ABLE Conservative	157,498	6.7%
Cash Option	1,801,845	76.8%
AL ABLE Cash	1,801,845	76.8%
<i>Total Assets</i>	<i>2,346,958</i>	<i>100.0%</i>

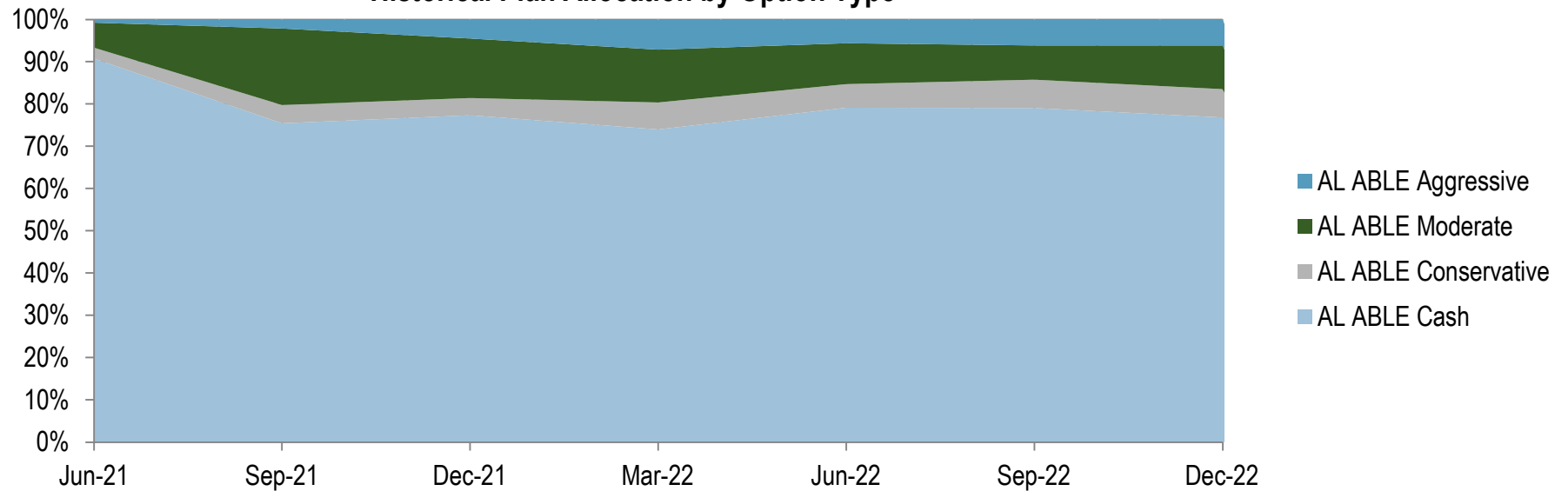
Current MV	
Total Plan	2,346,958



### Plan Market Value History



### Historical Plan Allocation by Option Type



Comparative Performance

	Ending December 31, 2022							Calendar Years				Sharpe
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Incep. (%)	Since	2021 (%)	2020 (%)	2019 (%)	2018 (%)	5 Yrs
<b>Plan Portfolios</b>												
AL ABLE Aggressive	8.0	-17.0	-17.0	--	--	-7.6	Jun-21	--	--	--	--	--
AL ABLE Aggressive Index	<u>7.8</u>	<u>-16.9</u>	<u>-16.9</u>	<u>3.3</u>	<u>4.6</u>	<u>-7.4</u>		<u>16.3</u>	<u>14.0</u>	<u>23.4</u>	<u>-8.0</u>	<u>0.2</u>
Over/Under	0.2	-0.1	-0.1			-0.2						
529 Static 70% to 85% Equity MStar Rank	56	58	58	--	--	31		--	--	--	--	--
AL ABLE Moderate	6.2	-15.7	-15.7	--	--	-7.4	Jun-21	--	--	--	--	--
AL ABLE Moderate Index	<u>6.2</u>	<u>-15.3</u>	<u>-15.3</u>	<u>3.5</u>	<u>4.7</u>	<u>-7.1</u>		<u>14.9</u>	<u>14.0</u>	<u>23.4</u>	<u>-8.0</u>	<u>0.2</u>
Over/Under	0.0	-0.4	-0.4			-0.3						
529 Static 30% to 50% Equity MStar Rank	16	93	93	--	--	51		--	--	--	--	--
AL ABLE Conservative	3.6	-12.1	-12.1	--	--	-6.2	Jun-21	--	--	--	--	--
AL ABLE Conservative Index	<u>3.8</u>	<u>-11.8</u>	<u>-11.8</u>	<u>4.3</u>	<u>5.2</u>	<u>-5.8</u>		<u>12.7</u>	<u>14.0</u>	<u>23.4</u>	<u>-8.0</u>	<u>0.3</u>
Over/Under	-0.2	-0.3	-0.3			-0.4						
529 Static 15% to 30% Equity MStar Rank	14	54	54	--	--	46		--	--	--	--	--
AL ABLE Cash	0.8	1.5	1.5	--	--	0.9	Jun-21	--	--	--	--	--
ICE BofA 3M US Trsy Note TR USD Index	<u>0.9</u>	<u>1.5</u>	<u>1.5</u>	<u>0.8</u>	<u>1.3</u>	<u>1.0</u>		<u>0.1</u>	<u>0.7</u>	<u>2.3</u>	<u>1.9</u>	
Over/Under	-0.1	0.0	0.0			-0.1						
529 Static Money Market MStar Rank	24	35	35	--	--	53		--	--	--	--	--

Returns for the Aggressive, Moderate, and Conservative options starting June 2021 are actual results and provided by Vestwell.

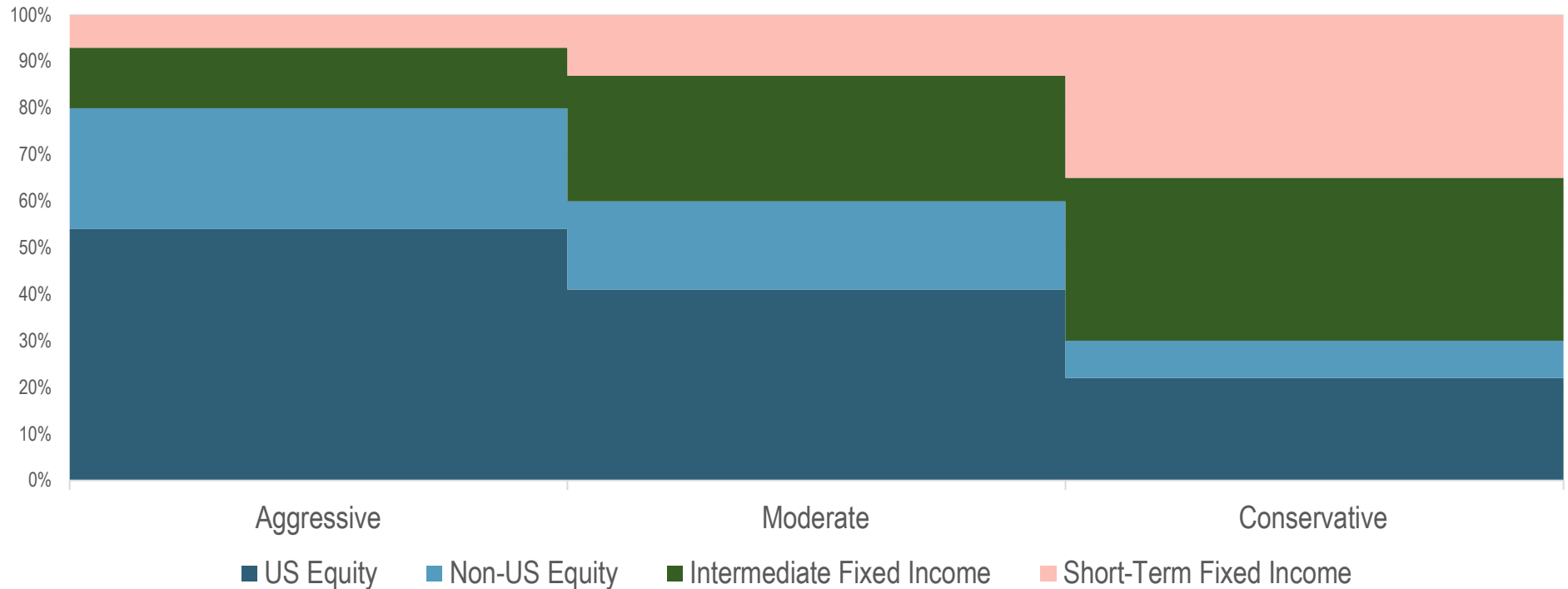
Returns for the Cash option have been provided by Vestwell and are net of the 30 bps state fee.

Index returns are based on target allocations.

Performance is net of mutual fund expenses and program administration fees. Percentile ranks are 1 = best and 100 = worst.

Portfolio Allocations

As of December 31, 2022



Underlying Funds	Ticker	Asset Class	Aggressive	Moderate	Conservative
Vanguard Total Stk Mkt Idx InstlPlus	VSMPX	US Equity	49.0%	36.0%	19.0%
Vanguard Real Estate Index Institutional	VGSNX	US Equity	5.0%	5.0%	3.0%
Vanguard Total Intl Stock Idx InstlPlus	VTPSX	Non-US Equity	26.0%	19.0%	8.0%
Vanguard Total Bond Index InstlPlus	VBMPX	Intermediate Fixed Income	13.0%	27.0%	35.0%
Vanguard Short-Term Bond Idx I	VBITX	Short-Term Fixed Income	4.0%	9.0%	22.0%
Vanguard Shrt-Term Infl-Prot Sec Idx Ins	VTSPX	Short-Term Fixed Income	3.0%	4.0%	13.0%

Fee Information

As of December 31, 2022

	Current Market Value (\$)	Underlying Expense Ratio	Board Administration Fee	<b>Total Fee</b>	529 Direct Sold Median Fee	Difference
Target-Risk Portfolios						
AL ABLE Aggressive	144,020	0.04%	0.30%	<b>0.34%</b>	0.33%	0.01%
AL ABLE Moderate	243,595	0.04%	0.30%	<b>0.34%</b>	0.30%	0.04%
AL ABLE Conservative	157,498	0.04%	0.30%	<b>0.34%</b>	0.37%	-0.03%
Cash Option						
AL ABLE Cash	1,801,845	0.00%	0.30%	<b>0.30%</b>	0.21%	0.10%
<b>Total Plan</b>	<b>2,346,958</b>	<b>0.01%</b>	<b>0.30%</b>	<b>0.31%</b>	<b>0.23%</b>	<b>0.08%</b>

The Alabama ABLE Plan has an Annual Account Maintenance Fee of \$35.

To the extent the interest rate on the Bank Account in which assets of the Cash Option are deposited is less during a particular period than the Administrative Fee, the Trustee, Program Manager, and Partner State will waive the portion of the Administrative Fee that exceeds such interest rate for the applicable period, and the Total Annual Asset-Based Fees for the Cash Option will be reduced accordingly for the applicable period.

Annual Fee Information

As of December 31, 2022

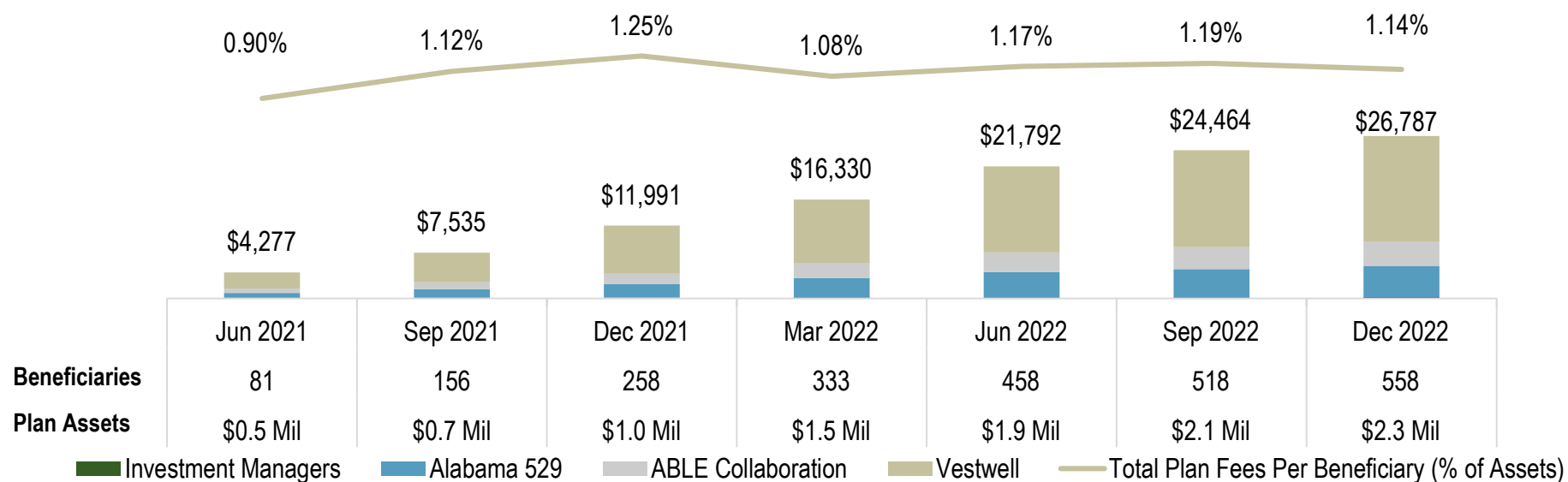
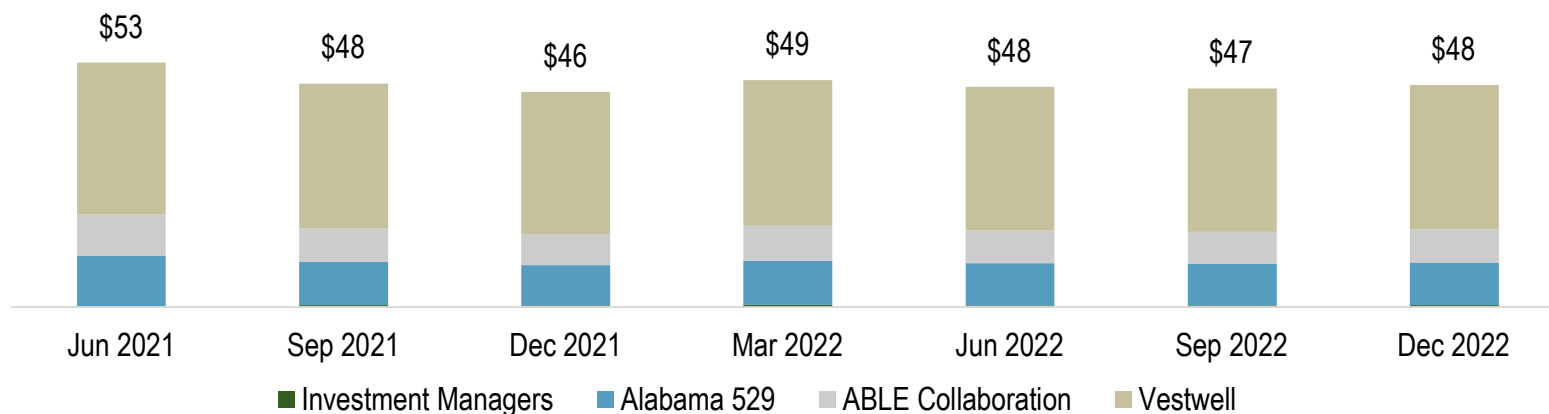
Beneficiaries: 558

Total Plan Assets: \$2,346,958

	Total Annual Fees			Annual Fee Type					
	\$	% of Assets	\$ Per Beneficiary	Assets \$	Flat \$ Fee	% of Assets	% of Assets Total \$ Fee	\$ Per Beneficiary	Per Beneficiary Total \$ Fee
<b>Fees Paid by Beneficiary</b>									
Investment Management	216	0.01%	0		-	0.01%	216	-	-
Alabama Annual Account Maintenance Fee	19,530	0.83%	35		-	-	-	35	19,530
<i>Fee paid to the Trustee (Alabama 529)</i>	2,790	0.12%	5		-	-	-	5	2,790
<i>Fee paid to the ABLE Collaboration</i>	1,674	0.07%	3		-	-	-	3	1,674
<i>Fee paid to Vestwell</i>	15,066	0.64%	27		-	-	-	27	15,066
Administrative Fees	7,041	0.30%	13		-	0.30%	7,041	-	-
<i>Fee paid to the Trustee (Alabama 529)</i>	2,347	0.10%	4		-	0.10%	2,347	-	-
<i>Fee paid to the ABLE Collaboration</i>	2,347	0.10%	4		-	0.10%	2,347	-	-
<i>Fee paid to Vestwell</i>	2,347	0.10%	4		-	0.10%	2,347	-	-
<b>Total Plan Fees</b>	<b>26,787</b>	<b>1.14%</b>	<b>48</b>	<b>2,346,958</b>	<b>-</b>	<b>0.31%</b>	<b>7,257</b>	<b>35</b>	<b>19,530</b>
<b>Total Net Fees by Service Provider</b>									
Investment Managers	216	0.01%	0		-	0.01%	216	-	-
Alabama 529	5,137	0.22%	9		-	0.10%	2,347	5	2,790
ABLE Collaboration	4,021	0.17%	7		-	0.10%	2,347	3	1,674
Vestwell	17,413	0.74%	31		-	0.10%	2,347	27	15,066
<b>Total Plan Fees</b>	<b>26,787</b>	<b>1.14%</b>	<b>48</b>	<b>2,346,958</b>	<b>-</b>	<b>0.31%</b>	<b>7,257</b>	<b>35</b>	<b>19,530</b>

As of December 31, 2022

### Total Plan Fees Per Beneficiary



Comparative Performance

Ticker	Ending December 31, 2022							Calendar Years							Sharpe
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	5 Yrs
<b>Underlying Funds - Target-Risk Portfolios</b>															
Vanguard Total Stock Mkt Idx Instl Pls VSMPX	7.2	-19.5	-19.5	7.0	8.7	12.1	8.7	25.7	21.0	30.8	-5.1	21.2	12.7	0.4	0.4
Custom Index (CRSP US Total Mkt)	<u>7.1</u>	<u>-19.5</u>	<u>-19.5</u>	<u>7.0</u>	<u>8.7</u>	<u>12.1</u>	<u>8.7</u>	<u>25.7</u>	<u>21.0</u>	<u>30.8</u>	<u>-5.2</u>	<u>21.2</u>	<u>12.7</u>	<u>0.4</u>	<u>0.4</u>
Over/Under	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Large Blend MStar MF Rank	76	79	79	62	56	46	32	66	19	49	52	59	18	55	59
Vanguard Real Estate Index Institutional VGSNX	4.4	-26.2	-26.2	-0.4	3.7	6.4	6.3	40.4	-4.7	29.0	-5.9	4.9	8.5	2.4	0.1
Custom Index (MSCI US IMI-Real Estate 25-50)	<u>4.3</u>	<u>-26.1</u>	<u>-26.1</u>	<u>-0.3</u>	<u>3.8</u>	<u>6.5</u>	<u>6.2</u>	<u>40.6</u>	<u>-4.6</u>	<u>29.0</u>	<u>-5.9</u>	<u>5.1</u>	<u>8.6</u>	<u>2.5</u>	<u>0.1</u>
Over/Under	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	-0.2	-0.1	0.0	0.0	-0.2	-0.1	-0.1	0.0
Real Estate MStar MF Rank	25	52	52	70	61	52	53	64	56	40	54	82	16	69	66
Vanguard Total Intl Stock Idx InstlPls VTPSX	14.7	-16.0	-16.0	0.5	1.1	4.1	1.7	8.7	11.3	21.6	-14.4	27.6	4.7	-4.2	N/A
Custom Index (FTSE Glo All Cap ex US)	<u>14.1</u>	<u>-16.1</u>	<u>-16.1</u>	<u>0.5</u>	<u>1.1</u>	<u>4.1</u>	<u>1.6</u>	<u>8.8</u>	<u>11.2</u>	<u>21.8</u>	<u>-14.6</u>	<u>27.4</u>	<u>4.7</u>	<u>-4.3</u>	N/A
Over/Under	0.6	0.1	0.1	0.0	0.0	0.0	0.1	-0.1	0.1	-0.2	0.2	0.2	0.0	0.1	N/A
Foreign Large Blend MStar MF Rank	81	54	54	57	59	68	55	65	44	61	46	33	13	85	N/A
Vanguard Total Bond Market Idx InstlPls VBMPX	1.7	-13.1	-13.1	-2.7	0.0	1.0	2.6	-1.6	7.7	8.7	0.0	3.6	2.6	0.4	N/A
Custom Index (Barclays US Agg Flt-Adj)	<u>1.9</u>	<u>-13.1</u>	<u>-13.1</u>	<u>-2.7</u>	<u>0.1</u>	<u>1.1</u>	<u>2.7</u>	<u>-1.6</u>	<u>7.7</u>	<u>8.9</u>	<u>-0.1</u>	<u>3.6</u>	<u>2.8</u>	<u>0.4</u>	N/A
Over/Under	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	-0.2	0.1	0.0	-0.2	0.0	N/A
Intermediate Core Bond MStar MF Rank	50	41	41	58	52	58	64	58	58	41	35	44	63	51	N/A
Vanguard Short-Term Bond Idx I VBITX	1.1	-5.5	-5.5	-0.7	0.8	0.9	1.8	-1.1	4.7	4.9	1.4	1.2	1.5	1.0	N/A
Bloomberg US Govt/Credit 1-5 Yr TR USD Index	<u>1.2</u>	<u>-5.5</u>	<u>-5.5</u>	<u>-0.7</u>	<u>0.8</u>	<u>1.0</u>	<u>1.9</u>	<u>-1.0</u>	<u>4.7</u>	<u>5.0</u>	<u>1.4</u>	<u>1.3</u>	<u>1.6</u>	<u>1.0</u>	N/A
Over/Under	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.1	-0.1	0.0	N/A
Short-Term Bond MStar MF Rank	64	72	72	83	77	81	68	93	28	47	33	87	80	16	N/A
Vanguard Shrt-Term Infl-Prot Sec Idx Ins VTSPX	1.3	-2.8	-2.8	2.4	2.5	1.3	--	5.3	5.0	4.8	0.6	0.8	2.8	-0.2	0.5
Bloomberg US TIPS 0-5 Year TR USD Index	<u>1.3</u>	<u>-2.7</u>	<u>-2.7</u>	<u>2.5</u>	<u>2.6</u>	<u>1.4</u>	<u>2.1</u>	<u>5.3</u>	<u>5.1</u>	<u>4.9</u>	<u>0.6</u>	<u>0.9</u>	<u>2.8</u>	<u>0.0</u>	<u>0.5</u>
Over/Under	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	--	0.0	-0.1	-0.1	0.0	-0.1	0.0	-0.2	0.0
Inflation-Protected Bond MStar MF Rank	78	1	1	8	10	15	--	55	96	92	1	90	89	2	1

Percentile ranks are 1 = best and 100 = worst.

Sources: Sellwood Consulting LLC, Morningstar Direct, Investment Metrics, eVestment, and investment managers.

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**Active Share** - Measure of the proportion to which a portfolio's holdings composition differs from the composition found in its benchmark. The greater the difference between the asset composition of the fund and its benchmark, the greater the active share.

**Average Credit Quality** - Measure of a bond portfolio's overall credit quality, calculated as an average of each bond's credit rating, as assigned by Standard & Poor's or Moody's, adjusted for its relative weighting in the portfolio.

**Batting Average** - Measure of an investment manager's ability to meet or beat an index, calculated by dividing the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiplying that factor by 100.

**Beta** - Measure of a portfolio's sensitivity to market movements, calculated by comparing a portfolio's excess return over the risk-free rate (90 Day T-Bills) to the market's excess return over the same risk-free rate. The beta of the market is 1.00 by definition.

**Correlation** - Measure of how two securities move in relation to each other, calculated as a correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (+1) implies that as one security moves up or down the other security will always move in the same direction. Alternatively, perfect negative correlation (-1) means that the securities always move in the opposite direction. If the correlation is 0, the security movements have no correlation.

**Dividend Yield** - Dividends per share of a security or portfolio over the trailing one-year period as a percentage of the current stock price(s).

**Duration** - Measure of a bond or bond portfolio's sensitivity to changes in interest rates, calculated based on the weighted average of the time periods over which bond cash flows accrue to the bondholder. A portfolio with a 5-year duration would be expected to lose 5% of its net asset value if interest rates rose by 1 percentage point, or gain 5% if interest rates fell by 1 percentage point.

**Excess Return** - Measure of a portfolio's achieved rate of return minus the return of a benchmark over the same period.

**Information Ratio** - Portfolio excess return relative to a benchmark divided by the portfolio return's tracking error relative to the same benchmark. Information ratio measures how much excess return is generated from the amount of excess risk taken relative to a benchmark.

**Price/Earnings (P/E)** - Ratio of a stock's current price divided by the company's trailing 12-month earnings per share from continuous operations. For a portfolio, calculated as the weighted average of P/E ratios of all stocks in the portfolio.

**Price/Book (P/B)** - Ratio of a stock's current price divided by the company's book value per share (total assets of a company, less total liabilities, divided by the number of shares outstanding). For a portfolio, calculated as the weighted average of P/B ratios of all stocks in the portfolio, with any stocks with negative book values being excluded.

**R-squared (R<sup>2</sup>)** - The percentage of a portfolio's return variance explained by the benchmark's returns.

**Sharpe Ratio** - Measure of risk-adjusted performance, calculated by dividing a portfolio's annualized excess returns over the risk-free rate (90 Day T-Bills) by its annualized standard deviation. The Sharpe ratio is not meaningful for comparison purposes when annualized excess return over the risk-free rate is negative.

**Standard Deviation** - Measure of dispersion about an average, depicts how widely a portfolio's returns varied over a certain period of time.

**Tracking Error** - The standard deviation (variability) of a portfolio's excess return relative to a benchmark.

**Upside/Downside Capture** - Upside/downside capture measures the percentage of a benchmark return realized by a portfolio during positive return periods (upside) or negative return periods (downside) within a defined time period. A value over 100 indicates outperformance for upside capture and underperformance for downside capture.

**Yield to Maturity** - Rate of return an investor will receive if a long-term, interest-bearing security, such as a bond, is held to its maturity date.